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EXAMINER				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/565,849

**Applicant(s)**

CHOI ET AL.

**Examiner**

LAWRENCE GALKA

**Art Unit**

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 January 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-42 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 26 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 1/26/06  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Figures 7-23 are screen captures of a computer screen and it is difficult to determine what is being shown. In particular, the positioning of the characters, translucent objects and onscreen interface are not distinguishable. For example, the local step signal is not visible in Figure 12 and the remote step signal is not visible in Figure 20. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.
2. The drawings are objected to because all figures incorporate non English symbol which this examiner assumes means “figure”. In addition, Figure 2 has been incorrectly labeled as Figure 3. Similarly, Figure 3 has been incorrectly labeled as Figure 2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the

remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. The disclosure is objected to because of the following informalities:
4. the term "Figs. 15 and 23" (p. 16, line 11) should be recited as --Figs. 14 and 23-- so as to correct a typographical error;
5. the term "a hollow state" (p. 18, line 17) should be recited as --translucent-- so as to correct a translation error;

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 5-9, 12, 16, 17-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.
8. Regarding claim 5, the specification does not detail specifically how a voice input is used with a direct action input device to generate commands.

9. Regarding claims 6 and 18, the specification does not detail how and where the world time code (WTC) is retrieved from a server. For example, are there specific server addresses which can be accessed to give a code? Is there a specific protocol used to access these servers? How is the communication lag between the time server and the gaming device compensated for?
10. Regarding claim 7, the specification does not specify in sufficient detail what constitutes a unit motion or how it is related to "respective motion scenes" and what the "interpolation calculations" are or how they are performed.
11. Regarding claim 8, the specification does not specify in sufficient detail what constitutes a unit motion or what relationships exist between substructures or what is the difference between producing data or specifying data or what is the difference between a frame and a varying frame.
12. Regarding claim 9, the specification does not specify in sufficient detail what constitutes a unit motion or what the position value correspond to or what are the respective relationships based on structure.
13. Regarding claim 12, the specification does not specify in sufficient detail the relationship between standard time and the playing time of a sound.
14. Regarding claim 16, the specification does not specify in sufficient detail how an output device confirms something using transmission and reception and how a solid object could possibly interact with typical output devices like an LCD. In addition, there is no explanation as to what constitutes an input/output intermediation state. Examiner believes there is a translation error in this claim where the literal translation has resulted in claim language that is not what was intended by applicant.

15. Regarding claims 17 and 24, the specification does not specify in sufficient detail how a new unit motion is generated from the individual unit motions implemented on each game system.
16. Regarding claim 21, the specification does not specify the difference between information sharing types and resource sharing types and how these would be serviced in a peer to peer network.
17. Regarding claim 22, the specification does not specify how one or more scripters is used in a peer to peer network.
18. Regarding claims 23 and 39, the specification does not specify what the separate memory is needed for and why it is required to implement a two person game.
19. Regarding claim 30, the specification does not specify how motion modification by the joints is accomplished.
20. Regarding claim 31, the specification does not specify what one unit is in reference to a unit motion.
21. Regarding claim 32, the specification does not specify how processing with a temporal effect by a mechanical controller is done. In addition, specification does not specify how spatial and physical effects like drag force or action/reactions are applied to the structure motions.
22. Regarding claim 36, the specification does not specify what is an actual image and how it is different from an image input via a camera.
23. Regarding claim 40, the specification does not specify the relation ship between a unit motion and a sports dance or how a unit motion is played like a sports dance.

24. Claims 18-23 and 25-42 are rejected for incorporating the above errors from their respective parent claims by dependency.

25. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

26. Claims 1-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

27. Regarding claim 1, the antecedent basis for "the structure" is lacking. In addition, it is not clear what is meant by "progress is repeated". Is this referring to a chainable animation like a single step used in showing a character walking?

28. Regarding claims 2 and 3, the antecedent basis for "the cooperative game system" is lacking.

29. Regarding claims 7-9, "data" is recited twice and it is unclear whether this refers to the same thing or not.

30. Regarding claim 16, it is unclear what input/output intermediation states are and what transmission and reception to and from a solid object are.

31. Regarding claim 17 and 24, the antecedent basis for "the structure" is lacking. In addition, it is not clear what is meant by "progress is repeated". Is this referring to a chainable animation like a single step used in showing a character walking? Finally, the "method for synchronizing motions in the cooperative game system" used to refer to claim 1, but claim 1 refers to "a method for synchronizing motions realized in a game system" so it is unclear whether there is an intent to reference claim 1 or not.

32. Regarding claims 22 and 23, the phrase "and the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "and the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d). In addition, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

33. Regarding claim 31, it is unclear what "one unit" is in reference to a unit motion.

34. Regarding claim 32, it is unclear how processing with a temporal effect by a mechanical controller is done. In addition, it is unclear how spatial and physical effects like drag force or action/reactions are applied to the structure motions.

35. Regarding claim 36, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

36. Regarding claim 38-39, the antecedent basis for "the system" is lacking.

37. Regarding claim 40, it is unclear what the relation ship between a unit motion and a sports dance is or how a unit motion is played like a sports dance.

38. Claims 2-16, 18-23, and 25-42 are rejected for incorporating the above errors from their respective parent claims by dependency.

#### ***Claim Rejections - 35 USC § 102***

39. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.



40. Claims 1-4, 8, 9, 13-15, 17, 19, 24, 27-33, 35-36 and 40 are rejected under 35

U.S.C. 102(b) as being anticipated by Yotoriyama (pub. no. 2003/0038428 A1).

41. Regarding claim 1, Yotoriyama discloses *a method for synchronizing motions realized in a game system including dance games played through cooperation between players, wherein: if, with respect to an event input by one player during any one of unit times when progress is repeated in synchronization with a standard time* (event is vertical attack by 1<sup>st</sup> player; see Fig. 20, #S23, [0155]), *another player inputs the same event* (another player inputs movement action which is the corresponding counter move to the vertical attack; see Fig. 20, #24, [0156]), *a unit motion corresponding to the input event is simultaneously represented through the structure during a subsequent unit time* (attacker avatar is shown attacking while defender avatar is shown dodging out of the way; see Fig. 20, #S27, [0162]).

42. Regarding claim 2, Yotoriyama discloses *the cooperative game system is implemented in the form of a single system* ([0111]).

43. Regarding claim 3, Yotoriyama discloses *the cooperative game system is implemented in the form of a remote client system over a network* ([0111]).

44. Regarding claim 4, Yotoriyama discloses *the event is input by one or a combination of a keyboard, mouse, trackball, joystick, touch screen, cellular phone key pad, dance pad, and network interface card* ([0216]).

45. Regarding claim 8, Yotoriyama discloses *the unit motion is set while dividing the structure into several substructures, defining each relationship for the substructures, and producing data by specifying data for the divided substructures every frame or varying frame* ([0099]).

46. Regarding claim 9, Yotoriyama discloses *the unit motion is set while producing data through movement along position values in a hierarchical structure that defines respective relationships based on structure data of a joint unit called a bone* (animation is created by moving a hierarchical skeleton of bones; see [0099]).

47. Regarding claim 13, Yotoriyama discloses *the unit motion is outputted and displayed via an image output device and a sound output device* ([0087]–[0088]).

48. Regarding claim 14, Yotoriyama discloses *the image output device is any one of a monitor, a head up display device, or an LCD panel* ([0087]).

49. Regarding claim 15, Yotoriyama discloses *the sound output device is a speaker* ([0088]).

50. Regarding claim 17, Yotoriyama discloses *if, with respect to an event input by one player during any one of unit times when progress is repeated in synchronization with a standard time* (event is vertical attack by 1<sup>st</sup> player; see Fig. 20, #S23, [0155]), *another player inputs the same event* (another player inputs movement action which is the corresponding counter move to the vertical attack; see Fig. 20, #24, [0156]), *each cooperative game system realizes a unit motion corresponding to the input event through the structure during a subsequent unit time* (attacker avatar is shown attacking while defender avatar is shown dodging out of the way; see Fig. 20, #S27, [0162]), *and at the same time, allows interactions generated by an individual unit motion implemented on each cooperative game system to be represented as a new unit motion by applying the method for synchronizing motions in the cooperative game system* (new unit motion is the dodging movement of the moving character which is displayed; see [0162]).

51. Regarding claim 19, Yotoriyama discloses *the plurality of cooperative game systems are implemented in the form of server/client by one server system and a plurality of client systems* (Fig. 22C).

52. Regarding claim 24, Yotoriyama discloses *if, with respect to an event inputted by one player during any one of unit times when progress is repeated in synchronization with a standard time* (event is vertical attack by 1<sup>st</sup> player; see Fig. 20, #S23, [0155]), *another player inputs the same event* (another player inputs movement action which is the corresponding counter move to the vertical attack; see Fig. 20, #24, [0156]), *each cooperative game system realizes a unit motion corresponding to the inputted event through the structure during a subsequent unit time, and at the same time, plays the game while allowing interactions generated by an individual unit motion implemented on each cooperative game system to be represented as a new unit motion by applying the method for synchronizing motions in the cooperative game system* (attacker avatar is shown attacking while defender avatar is shown dodging out of the way; see Fig. 20, #S27, [0162]).

53. Regarding claim 27, Yotoriyama discloses *the unit motion includes movements in eight directions of front, back, left, right, front-left, front-right, back-left, and back-right* ([0118], Fig. 2B).

54. Regarding claim 28, Yotoriyama discloses *the unit motion includes 90.degree. rotation, 180.degree. rotation, 360.degree. rotation, and a special unit motion* ([0118], Fig. 2B).

55. Regarding claim 29, Yotoriyama discloses *the unit motion includes sitting, standing, bending, and successively rotating* ([0116], Fig. 2A).

56. Regarding claim 30, Yotoriyama discloses *the unit motion includes joints constituting a structure and motion modifications by the joints* ([0099]).
57. Regarding claim 31, Yotoriyama discloses *the unit motion has as one unit several joints constituting a structure and several combinations of a plurality of motions by the joints* ([0099]).
58. Regarding claim 32, Yotoriyama discloses *processing is made with a temporal effect by a mechanical control in a controller* (movement of character determined by position of character in previous frame and control data from control unit; see [0097]), *or a spatial and physical effect such as a drag force and action/reaction upon controlling structure motions* (inverse kinematics can be used to calculate movement; see [0101]).
59. Regarding claim 33, Yotoriyama discloses *the event is input by one or a combination of a keyboard, mouse, joystick, key panel, dance pad, and network interface card* ([0216]).
60. Regarding claim 35, Yotoriyama discloses *the structure is a two or three-dimensional object* (structure is the characters in a 3d fighting game; see [0003]).
61. Regarding claim 36, Yotoriyama discloses *the object is implemented by a combination of an object made based on images input via cameras or the like, and an actual image* (animations of characters can use motion captured data; see [0100]).
62. Regarding claim 40, Yotoriyama discloses *the unit motion is played by two persons like a sports dance* (2 player fighting game is a competition in which two characters move while interacting with each other; see [0003]).
63. Claims 1 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamazaki et al. (pat. no. 6,280,323 B1).

64. Regarding claim 1, Yamazaki et al. discloses *a method for synchronizing motions realized in a game system including dance games played through cooperation between players, wherein: if, with respect to an event input by one player during any one of unit times when progress is repeated in synchronization with a standard time* (event is aiming and initiating penalty kick by 1<sup>st</sup> player; see col. 30, lines 6-33, Fig. 32, #S351 and #S353), *another player inputs the same event* (another player inputs keeper movement corresponding to kick aim point; see col. 30, lines 34-54, Fig. 34, #S401 and #S405), *a unit motion corresponding to the input event is simultaneously represented through the structure during a subsequent unit time* (kicker is shown kicking the ball and keeper moves to try to catch or punch the ball; if the player has input a keeper move corresponding to kicker aim point, ball will be caught or deflected; see col. 33, lines 22,41).

65. Regarding claim 16, Yamazaki et al. discloses *the image output device confirms input/output intermediation states via a solid object based on transmission and reception to and from the solid object* (display of kick cursor / shoot point guide indicates when players can make an input; when kick cursor is displayed both player can make inputs; when shoot point guide is displayed only keeper can make inputs; see col. 30, lines 48-53).

### ***Claim Rejections - 35 USC § 103***

66. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

67. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

68. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

69. Claims 5 and 34 rejected under 35 U.S.C. 103(a) as being unpatentable over Yotoriyama (pub. no. 2003/0038428 A1) in view of Gurner et al. (pat. no. 5,442,168).

70. Regarding claims 5 and 34, it is noted that Yotoriyama does not disclose using cameras or sensors to input event data. Gurner et al. however, teaches an input device using light sensors that can detect motions of a player's hands and feet. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Yotoriyama invention to use the input device as taught by Gurner. The Gurner sensor would allow players to be more directly connected with the characters action thereby increasing the perceived entertainment value of the game.

71. Claims 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yotoriyama (pub. no. 2003/0038428 A1) in view of Matheson (pat. no. 4,570,930).

72. Regarding claims 6 and 18, it is noted that Yotoriyama does not explicitly disclose using a world time code as the standard time. Matheson however, teaches using frame count of the game as a world time code in order to synchronize two game devices. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Yotoriyama invention to use the frame counter as a world time code as taught by Matheson. Synching inputs to common time base would make games more responsive to user inputs thereby enhancing perceived entertainment value.

73. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yotoriyama (pub. no. 2003/0038428 A1) in view of Handelman et al. (pat. no. 6,057,589).

74. Regarding claim 7, it is noted that Yotoriyama does not explicitly disclose using interpolation to calculate animation data. Handelman et al. however, teaches of using interpolation between key frames to calculate animation data (col. 1, lines 23-26). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Yotoriyama invention to use interpolation between key frames to calculate animation data. Using interpolation would reduce the amount of animation data that would have to be created and stored.

75. Claims 10-11, 25-26, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yotoriyama (pub. no. 2003/0038428 A1) in view of Official Notice.

76. Regarding claim 10, it is noted that the Yotoriyama does not explicitly disclose a sound associated with an animation that is played in synchronization with the animation. This

examiner takes official notice that it was common practice in the video game industry at the time the invention was made to play a sound effect in synchronization with an animation. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the Yotoriyama invention to play a sound in synchronization with an animation. Synching Foley-type sound effects with an animation would enhance the realism of the game.

77. Regarding claim 11, it is noted that the Yotoriyama does not explicitly disclose a sound that is one of WAV, MP3, WMA, or MIDI. This examiner takes official notice that it was common practice in the video game industry at the time the invention was made to implement a sound as a WAV, MP3, WMA or MIDI. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the Yotoriyama invention to use WAV, MP3, WMA, or MIDI to implement a sound. Use of standard industry formats would enable the use of standard tools to create data.

78. Regarding claim 25, it is noted that Yotoriyama does not explicitly disclose that first and last frames of an animation match. This examiner takes official notice that it was common practice in the video game industry at the time the invention was made to create chainable animations with matching start and end frames. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to implement chainable animations with matching start and end frames. Using a chainable animation with matched start and end frames would allow walk and run cycles of indeterminate length.

79. Regarding claim 26, it is noted that Yotoriyama does not explicitly disclose that an animation has a playing time that is adjusted by tempo. This examiner takes official notice that it



was common practice in the video game industry at the time of the invention to play animations at various speeds. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to adjust animation play time. Adjusting play time would allow one animation to be used for several different speeds of movement.

80. Regarding claim 37, it is noted that Yotoriyama does not explicitly disclose that the avatar was made by a separate modeling tool. This examiner takes official notice that it was common practice in the video game industry at the time the invention was made to make avatars using separate modeling tools. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Yotoriyama invention to use an avatar made with a separate modeling tool. Using a commercially available modeling tool would reduce training time for 3d artists.

81. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yotoriyama (pub. no. 2003/0038428 A1) in view of Matheson (pat. no. 4,570,930).

82. Regarding claim 12, it is noted that Yotoriyama does not explicitly disclose using a world time code as the standard time. Matheson however, teaches using frame count of the game as a world time code in order to synchronize two game devices. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Yotoriyama invention to use the frame counter as a world time code as taught by Matheson. Synching inputs to common time base would make games more responsive to user inputs thereby enhancing perceived entertainment value.

83. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yotoriyama (pub. no. 2003/0038428 A1) in view of Hochstein et al. (pat. no. 5,350,176).

84. Regarding claim 20, it is noted that Yotoriyama does not disclose the game systems are connected in a peer to peer network. Hochstein et al. however, teaches of two game systems connected in a peer to peer network (Fig. 2). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Yotoriyama invention to use the peer to peer connection as taught by Hochstein et al. A peer to peer connection would remove the need to provide a server thereby reducing the cost of the gaming system.

85. Regarding claim 21, it is noted that Yotoriyama does not disclose using an information sharing or resource sharing peer to peer network. Hochstein et al. however, teaches of two game systems connected in a peer to peer network where the player's controller inputs and synch data is shared. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Yotoriyama invention to use the information sharing peer to peer connection as taught by Hochstein et al. An information sharing peer to peer connection would be operable over a slow data connection thereby reducing the cost of the gaming system.

86. Regarding claim 22, it is noted that Yotoriyama and Hochstein do not explicitly disclose using scripters in implementing the peer to peer network. This examiner takes official notice that it was common practice in the video game industry at the time the invention was made to use a scripter to implement a peer to peer network. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to use a readily available scripter to implement network functionality. Use of a commercially available software package would be cheaper and enhance the reliability of code.

87. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yotoriyama (pub. no. 2003/0038428 A1) in view of Hochstein et al. (pat. no. 5,350,176) as applied to claim 20 above, and further in view of Wang (pub. no. 2004/0266528 A1).

88. It is noted that Yotoriyama and Hochstein do not explicitly disclose using a PS2, Xbox, GameCube, PSP, PSX, N-Gage, or DS as a client system. Wang however, discloses a using an Xbox to play a two person game ([0056]). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Yotoriyama Hochstein invention to use an Xbox as a client system as taught by Wang. An industry standard game system is readily available and cheaper than a custom made game system.

89. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yotoriyama (pub. no. 2003/0038428 A1) in view of Danieli (pub. no. 2004/0255032 A1).

90. Regarding claim 38, it is noted that Yotoriyama does not disclose a chat or voice system. Danieli, however, teaches a voice system where players can converse with each other. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Yotoriyama invention to use a voice chat system as taught by Danieli. Enabling players to talk to each other using voice chat while playing the game would enhance the perceived entertainment value of the game.

91. Claims 24, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ota (pat. no. 6,001,013) in view of Yotoriyama (pub. no. 2003/0038428 A1).

92. Regarding claim 24, Ota discloses *if, with respect to an event inputted by one player during any one of unit times when progress is repeated in synchronization with a standard time (player operation of external device; see Fig. 6, #S44), another player inputs the same event*

(timing of performance of other dancer; see Fig. 6, #S48, and col. 21, lines 33-52), *each cooperative game system realizes a unit motion corresponding to the inputted event through the structure during a subsequent unit time* (Fig. 6, #56 and col. 21, lines 62-67). It is noted that Ota does not explicitly disclose a new unit motion that is a result of the interactions. Yotoriyama however, teaches of a 2 player game where a new unit motion (a dodge maneuver) is output when two players input the appropriate commands substantially at the same time (see Fig. 20, #S27, [0162]). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Ota invention to include the new unit motion as taught by Yotoriyama. Adapting animations so that new cooperative animations are displayed will reward the player for correctly timing will increase the perceived entertainment value of the game.

93. Regarding claim 40, Ota discloses *the unit motion is played by two persons like a sports dance* (col. 22, lines 9-17).

94. Regarding claim 41, Ota discloses *the sports dance is played as one or combination of waltz, tango, fox trot, Vienna waltz, quickstep, jive, rumba, chachacha, samba, passodobbele, and blues* (social dances with predefined steps; see col. 22, lines 45-47).

95. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ota (pub. no. 6,001,013) in view of Yotoriyama (pub. no. 2003/0038428 A1) as discussed in claims 24, 40 and 41 above and further in view of further in view of Sagawa et al. (pat. no. 6,379,244 B1).

96. Regarding claim 42, it is noted that Ota and Yotoriyama do not explicitly disclose a dance game using swing, salsa, disco, twist, mambo, hip-pop, synchronized swimming or ice dancing. Sagawa et al. however, teaches of a music game using disco music (col. 14, lines 7-10).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the Ota and Yotoriyama invention to include disco music as taught by Sagawa. Using a popular form of music would increase the popularity of the game.

***Conclusion***

97. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nobe et al. (pub. no. 2002/0025842 A1) discloses a two player dance game where two players simultaneously input controls in response to onscreen prompts.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAWRENCE GALKA whose telephone number is (571) 270-1386. The examiner can normally be reached on M-Th 7:30-5, every other F 7:30-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on (571) 272 4430. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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